

Toxicology and terrorism (the threat of chemical weapons and their effects)



Toxicology and Terrorism Following the September 11, attacks the US not only suffered loss of life and destruction of property but also the risk of intoxication. Although toxic effects from the explosion were not experienced immediately after the attack, toxic materials absorbed by people around the World Trading center site still pose a major health problem in their life.

Following the collapse of the World Trade Center and twin towers buildings different materials such as electronics, furniture scattered around the site. In addition, smoke and dust continued to leak out of the collapsed buildings months after the attack had been executed. This essay will therefore, explore the health impacts of the September 11 attack on the US in relation to toxic exposure.

Dust that resulted from the collapse of the two buildings was heavily toxic according to experts. After the collapse of the two buildings, hundreds of tons of debris were introduced into the atmosphere through dust and smoke. Of the toxic substances resulting from the site, more than 50% consisted of non-fibrous material, 40% consisted of glass fibers that are known to be highly toxic. In addition, large quantities of heavy metals such as mercury and lead were also produced from the site of explosion. The toxic dust emanating from the site also contained high asbestos, polycyclic, aromatic hydrocarbons and cadmium.

All the toxic materials produced from the site have diverse and long-lasting health effects on the victims. Majority of the people affected by the toxic materials are the rescue workers and security personnel who stayed around the explosion site for a long time. The toxic substances also affected people who were rescued from the site after being trapped in the rabbles for long time. Toxic materials such as crystalline silica, asbestos, and lead are <https://assignbuster.com/toxicology-and-terrorism-the-threat-of-chemical-wepons-and-there-effects/>

believed to cause cancer due to their carcinogenic effects. Some of these materials can also cause terminal illness such as heart disease and kidney failure (Timbrell, 2002). Studies carried out on rescue and recovery officers at ground zero indicate a strong correlation between their level of exposure to the toxic debris and their health. Of all rescue officers who in action at ground zero, 75 have been diagnosed with different types of cancer including blood cancer. Respiratory diseases are also common among people who were exposed to toxic debris (Gupta, 2009).

Following these attacks, and the knowledge I have acquired from studying toxicology, I feel adequately prepared to manage toxicological threats. The September 11 attacks have also enabled me to be vigilant on such occurrences. This is because toxic products particularly those that get into human body through the respiratory system are unnoticed by most people (Timbrell, 2002). The toxic poisoning that resulted from the attacks has also made me to be vigilant on smoke emanating from buildings. Smoke from electronic wastes is also equally toxic since it contains large amounts of heavy metals such as lead and mercury.

In conclusion, the September 11 attacks on the Twin Towers and World Trade Center produced large quantities of toxic materials. Of these materials, a large percentage consisted of non-fibrous materials and heavy metals. In addition, carcinogenic substances were also produced from the site. The toxic material that were contained in dust and smoke emanating from the collapsed buildings have had diverse and long term effects on the victims most of whom were rescue workers and security personnel.

References

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